

INTERNATIONAL SEARCH REPORT

International Application No

PCT/ 2004/051922

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K31/4035 C07D209/46 A61P7/02 C07D401/06 C07D413/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 655 439 A (ELI LILLY AND COMPANY) 31 May 1995 (1995-05-31) page 1, lines 23-26; claims 1-4 page 17, line 38 - page 21, line 10 page 27, line 1 - page 30, line 40 example 9	1-20
P,X	EP 1 391 451 A (EISAI CO., LTD) 25 February 2004 (2004-02-25) paragraphs [3364], [3365]; claims 1-32 examples	1,2,4, 10-20
X	& WO 02/085855 A (EISAI CO., LTD; SUZUKI, SHUICHI; KOTAKE, MAKOTO; MIYAMOTO, MITSUAKI; K) 31 October 2002 (2002-10-31) ----- -/--	1,2,4, 10-20

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

2 March 2005

Date of mailing of the international search report

17.05.05

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 540 334 A (MERCK & CO. INC) 5 May 1993 (1993-05-05) cited in the application claims 1,4,13-15 -----	1,2, 10-13
X	US 3 997 572 A (CUSIC ET AL) 14 December 1976 (1976-12-14) column 1, line 15 - column 2, line 13 column 2, line 67 - column 3, line 7 examples 12,15 -----	1,2, 10-13
X	DD 66 175 A (TONJES H) 5 April 1969 (1969-04-05) column 1, line 15 - line 17 formula I; examples 8, 14 -----	1,2, 10-13
X	GB 989 917 A (VEB ARZNEIMITTELWERK DRESDEN) 22 April 1965 (1965-04-22) page 1, lines 14,15; claims 1,13 -----	1,2, 10-13
X	NEW J S ET AL: "Buspirone analogues. 2. Structure-activity relationships of aromatic imide derivatives" JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY. WASHINGTON, US, vol. 29, no. 8, 1986, pages 1476-1482, XP002939655 ISSN: 0022-2623 tables I,II -----	1,2, 10-13
X	SUGIMOTO H ET AL: "Synthesis and structure-activity relationships of acetylcholinesterase inhibitors: 1-benzyl-4-(2-phthalimidoethyl)piperidine and related derivatives" JOURNAL OF MEDICINAL CHEMISTRY., vol. 35, no. 24, 1992, pages 4542-4548, XP002319779 USAMERICAN CHEMICAL SOCIETY. WASHINGTON. table II -----	1,2, 10-13

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-20

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-20

Compounds of formula I and corresponding syntheses,
compositions and uses thereof

2. claim: 21

Alternative process for introducing a keto substituent at
the ortho position of phenols.

3. claim: 22

Alternative process for introducing a keto substituent at
the para position of phenols.

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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		US 3642836 A	15-02-1972
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		ZA 7000739 A	31-03-1971
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